*BY ORDER OF THE SECRETARY OF THE AIR FORCE*

*AIR FORCE INSTRUCTION 21-123*
*1 FEBRUARY 1997*

*Maintenance*

# *AIR FORCE GOLD PROGRAM*

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**



★This instruction implements AFPD 21-1, Managing Aerospace Equipment Maintenance, by providing guidance and procedures to increase wing-level repair capability of aerospace parts and equipment. It describes the initiation, evaluation, and approval process for locally-generated maintenance initiatives for base level or base contract repair. It establishes guidelines for Repair Initiative Conferences (RIC) between Major Commands (MAJCOMs) and AFMC Single Managers (SMs). Major Commands may supplement this instruction to provide tailored guidance and procedures. Waiver authority for this instruction is HQ USAF/LGMM.

*SUMMARY OF REVISIONS*

This revision better identifies the role of the AFMC Single Manager (SM) and provides additional guidance for AFMC, MAJCOM, and base level managers participating in AF Gold Program processes. It expands guidance provided in Figure 1, Process Flow Chart, by identifying processes performed at all levels. A new section to Figure 1 outlining the SM evaluation and approval process is included in this revision.

**★1. Program Objectives.** The main objective of the Air Force Gold program is to optimize Air Force mission capability and reduce total Air Force material costs using base repair of items or procurement of repair services. A primary consideration is whether or not repair of the item is cost effective without risk to mission performance. Repair cost/benefit analyses must consider the total costs to the Air Force. Wing/base, supply system, depot and any other costs must be identified at the appropriate management level in determining the total cost of repair.

**★2. Program Scope.** The scope of the Air Force Gold Program is to have organizations identify items, primarily coded XB3 and XF3, for base level or base contract repair and XD2 items for increased base level or base contract repair. Once a candidate is identified, the final decision on repair of the item must include a cost/benefit analysis with coordination among the base, MAJCOM and SM.

**★3. Program Process.** Each SM will identify an Air Force Gold Program focal point. Each participating MAJCOM will identify an Air Force Gold Program Manager. Figure 1 shows the general process flow of the Air Force Gold Program. MAJCOM-tailored "gold" programs may also address unit program manager responsibilities; funding and funds tracking requirements; acquisition responsibilities; quality control, and configuration management requirements; and processes to report and disseminate good ideas, approved initiatives, and cost savings.

★3.1. Initiative Submission. Anyone may submit an initiative. Typically, the maintenance technician starts the process by questioning the rationale for discarding, condemning, or returning an item as Not Reparable This Station (NRTS). All technicians play a key role in identifying potential unit-level reparables. Supervisors will emphasize the program within their workcenters. Sources of ideas may include Intermediate Repair Enhancement Program (IREP) meetings, Defense Reutilization and Marketing Office (DRMO) visits, waste busters, and personal observations of the work environment. Submit initiatives using AFTO Form 22, Technical Order System Publication Improvement Report and Reply; and/or AFTO Form

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OPR: HQ USAF/LGMM (Col David R. Zorich)

Certified by: HQ USAF/LGM (Maj Gen M. J. Harris)
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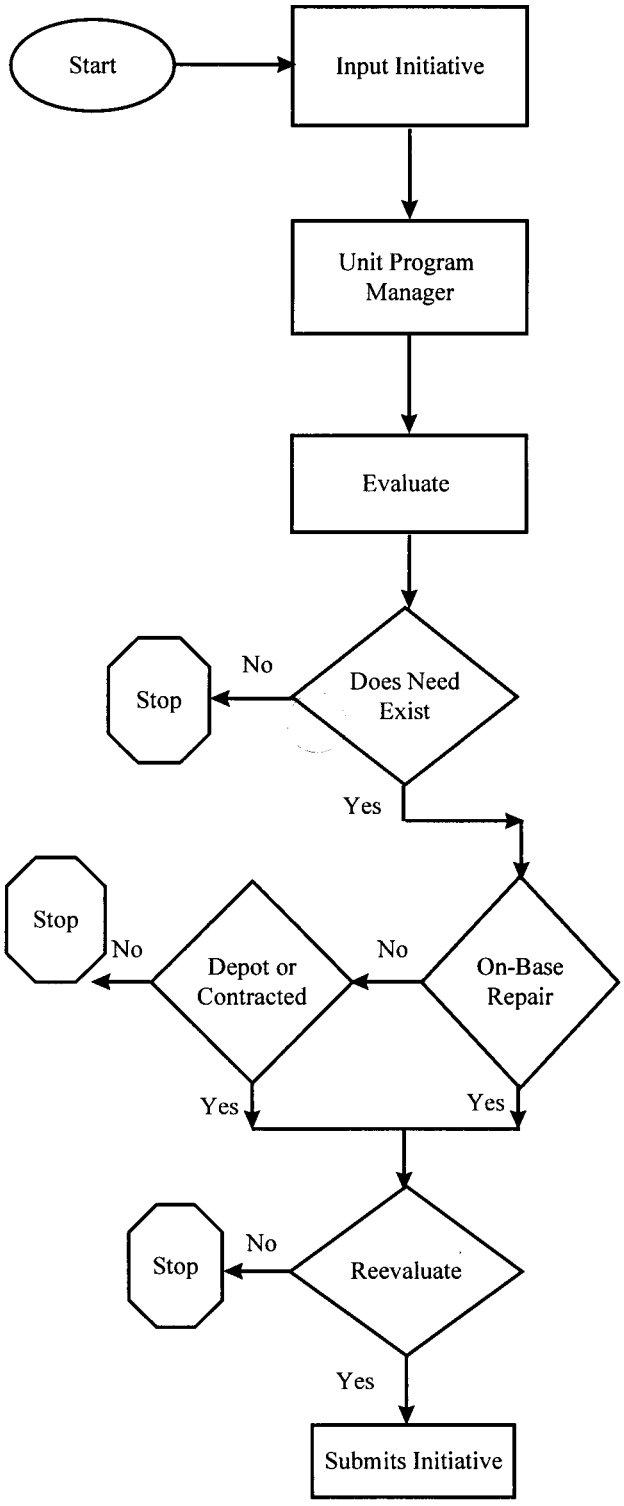
135, Source Maintenance and Recoverability (SMR) Code Change Request. Use only one of these methods: do not submit initiatives through duplicative methods, as this results in unnecessary parallel work efforts.

**Figure 1. Unit Processes.**




Initiatives From The Following Sources
- IREP
- Shortages
- Phone
-Walk-in
- Wastebusters
- DRMO Visits
-Local Forms

Unit Program Manager
- Creates item record and tracks item
- Delegates who works it
- Does Supply inquiry
- Develops Wing program
- Coordinates with AFMC IM/ES engineers
- Ensures processes are met on each initiative (submission, eval, approval, implementation)
- Wing RIC point of contact

Evaluation
-Check: CAMS, run supply inquiry, MICAP
- Determine IM/ES available assets
- Item previously evaluated? (Check unit data base, RIC results, product improvement inputs)
- Refer to depot level T.O.s to develop procedures

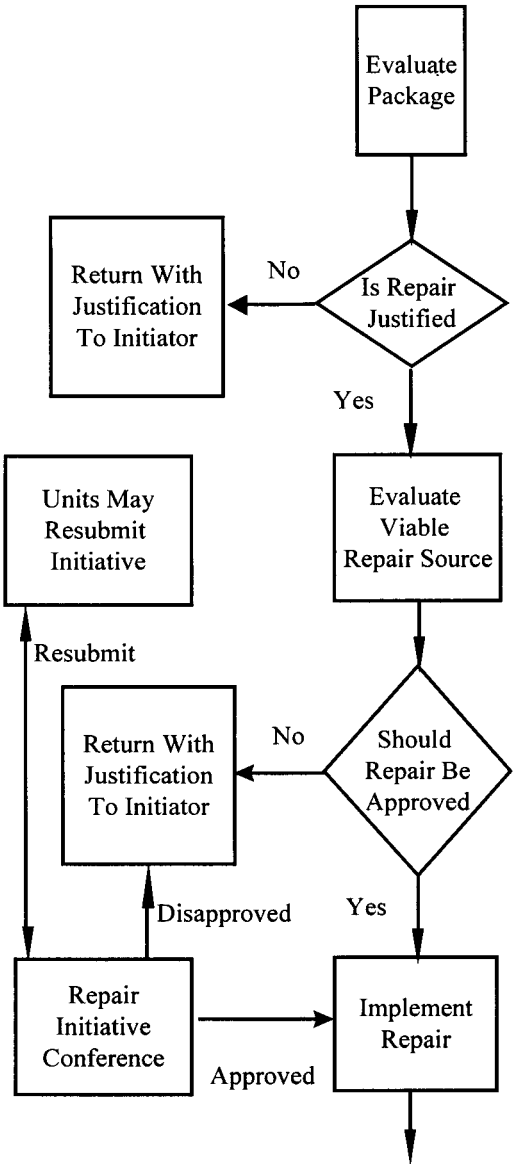
On Base Repair
- Tools, test equipment, training, technical data availability
- How long will repair take (man-hours)
- Cost effective or necessary for mission needs
- Repair parts availability

Depot or Contracted
- Contact depot repair centers
- Contact vendors and ask for free eval
- Contracting researches vendor repair sources
- Check with other units for vendor repair sources
- Need base contracting support for program success
- Solicit and compare estimates
- Use FORM 9, MIPR, etc...

Reevaluate After Contracting or Base Look
- Is it still worth doing?

Formalize Repair Initiative
- Formalize repair via AFTO FORMs 135 or 22
- Include all research details to depot to support request
- Originator submits with support of program manager
- File in program office for audit trail
- If disapproved, resubmit via RIC or use formal rebuttal process for AFTO FORM's 135, 22, or phone call

**Figure 2. Single Manager Evaluation and Approval and Unit Implementation Process.**




Evaluate Package
- Determine engineering viability of package
- Determine manpower, facility, test equipment, tools, training, and technical data are adequate
- Determine life cycle cost savings
- Determine if repair should be implemented at other locations
- Determine any risks (support, reliability, cost, etc.)
- Determine effect on system availability
- Determine if A product improvement would be more cost effective

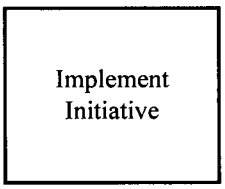
Repair Justified ?
- Repair is justified if system availability is increased and/or cost is reduced

Evaluate Viable Repair Source
- Base, depot, base contracted source, and/or depot contracted source (select best repair source)

Repair Approval
- Is the repair cost effective?
- Are the savings worth establishing a repair source:
  -- Is the repair source viable for the life of system?
- Do factors other than cost justify repair?

Implement Repair
- Change all technical orders to implement repair

Repair Initiative Conference
- Review all additional information that may change a disapproval to an approval




Implementation Process
- Follow approved procedures:
  -- Technical data/AFTO 135/IBW (TO 00-25-195)
- Develop local IBW approval procedures IAW TO 00-5-1
- Share information via RIC's Msg, phone, ETC...

★3.2. Initiative Evaluation. This is done by the most qualified person able to properly assess the initiative. Determine need based on local supply consumption data and mission requirements. Assess on-base repair capability, e.g., availability of technical data, repair parts, tools, test equipment, training, wholesale stock availability, and the credit indicator. If no on-base capability exists consider authorized locally-contracted repair sources using approved procedures. If local repair capability is considered feasible, recommend the best repair method based on cost effectiveness and mission requirements. Contact the SM (Gold Program Focal Point) to determine any special considerations, e.g., safety of flight, warranty, unique supply requirements/restrictions. A repair initiative will not change the item configuration.

3.3. Initiative Approval. Initiatives will be routed to the appropriate level for approval, locally for base reparables, using general technical order guidance, and to the appropriate SM for all other items. Route AFTO Form 135 and AFTO Form 22, IAW applicable guidance. Provide sufficient detail to give the approval authority a clear sense of the initiative, attaching local forms, drawings and video tapes as appropriate. If additional information warrants, disapproved initiatives may be resubmitted via the applicable formal rebuttal process or reconsidered at a Repair Initiatives Conference (RIC). Requests for reconsideration at RICs should primarily be for items where direct interface is needed to better understand the initiative.

3.4. Initiative Implementation. Effect repairs IAW approved technical data, and verify serviceability to include testing when required, prior to use or turn-in to base supply. Mark repaired items by some practical means which will allow deficiency reporting. Markings will include office symbol and DSN number of the repair facility. When an Individual Base Waiver (IBW) has been approved (IAW TO 00-25-195), this takes the form of a local checklist prepared by the repair shop technician and Quality Assurance IAW TO 00-5-1. Disseminate information on implemented initiatives by message, telephone, technical data changes or RIC cross-tells.

3.5. Program Benefits Tracking. Each participating MAJCOM will establish a systematic process to capture program savings. Use guidance outlined in TO 00-20-3 to determine repair costs.

**★4. Contract Repair.** Contact base contracting personnel for guidance on processing contract requirements. Only use repair sources listed as "currently-approved vendors" unless the activity with item management responsibility specifically approves an alternate source.

**5. Repair Initiatives Conferences (RIC).**

5.1. Purpose. RICs provide a forum where repair initiative originators and depot approvers review priority, and unresolved or previously disapproved repair initiatives. They are designed to break any communication "gridlock" in the initiative approval process, provide cross-tell opportunities, explore new technology, demonstrate repair processes, and conduct on-site repair shop visits. Topics include Source, Maintenance, and Recoverability, (SMR) code changes, technical order procedures (inspections, test, time change, and overhaul criteria), local manufacture, better tools, and new or improved support equipment uses.

★5.2. Attendance. RICs are held as required. The senior MAJCOM representative and the SM or his/her equivalent representatives conduct the RIC and assign suspenses and offices of primary responsibility (OPR). The MAJCOM Functional Manager (MFM) administers the RIC, recording action items, suspenses, OPRs, and results; and prepares the conference minutes. Wing representatives brief their initiatives, perform demonstrations, and/or provide video tapes as appropriate. Other attendees include SM technical representatives to address agenda items, and wing Air Force Engineering and Technical Services (AFETS) specialists to provide technical advice on initiative preparation and presentation.

★5.3. Agenda. The MFM sends a message announcing the conference date (T) and location, and solicits agenda items (T-120 days ). Units may submit agenda items to the MFM in the format shown at figure 2; the MFM submits agenda items to the SM Air Force Gold Program focal point. The MFM selects and prioritizes proposed agenda items, and coordinates with the SM focal point on the items to be worked at the conference. Unresolved and disapproved initiatives in for reevaluation, particularly those needing an in-depth presentation, should be considered first. The MFM transmits the final agenda to the SM focal point (T-75 days). The MFM provides the SM focal point with detailed documentation, including previously submitted forms, for each agenda item (T-45 days). SM focal point ensures each agenda item is assigned an OPR for evaluation to make an approval/disapproval recommendation to include supporting rationale and cost data. An agenda item may be deleted only by its originator or by the MFM The SM is the final approval authority for initiatives. For approved items meeting "Priority Submission" criteria IAW 00-25-195 or 00-5-1, as a minimum, Interim Operating Supplements will be issued within 30 days of item approval. Approved items requiring only TO changes are issued IAW 00-5-1; no additional AFTO Forms 22 or 135 are needed.

**Figure 3. Repair Initiatives Conference Submission Format.**

| REPAIR INITIATIVES CONFERENCE SUBMISSION FORMAT | | |
|---|---|---|
| (TYPE) RIC (CY) | | |
| ACTION ITEM NO: (LEAVE BLANK) | | |
| SUBJECT: | | |
| SUGGESTION NO: | AFTO FORM 135 NO: | AFTO FORM 22 NO: |
| DATE 1ST SUBMITTED: | DATE 1ST SUBMITTED: | DATE 1ST SUBMITTED: |
| MDS: | WUC: | TO/FIG/IND/PARA: |
| PART NO: | NSN: | ERRC CODE: |
| INITIATOR: (NAME OF SUBMITTER) | WORKCENTER: | DSN: |
| PIM: (PRODUCT IMPROVEMENT MANAGER) | UNIT: | DSN: |
| AFMC OPR: | | |
| PROBLEM STATEMENT: | | |
| REQUIRED ACTION: | | |
| STATUS/COMMENT: (LEAVE BLANK) | | |
| ESTIMATED SAVING: (SHOW COMPUTATION FOR YOUR UNIT) | | |
| ECD: (LEAVE BLANK) | | |

★5.4. Follow-up. The MFM monitors the status of open action items. The SM AF Gold Program focal point provides the MFM current status at 45-day intervals. These items are tracked until confirmation of AFMC Form 252, TO Publication Change Request, or written approval for local use. The goal is to close all action items within 90 days: exceptions are those initiatives which require extensive SM engineering testing to confirm suitability, or by mutual agreement with MAJCOM (MFM) to hold in abeyance and incorporate into major revisions of existing T.O.s at an agreed to date (not to exceed 180 days abeyance).

**6. Circuit Card Repair (CCR).** CCR encompasses troubleshooting, isolating, and repairing defective circuit cards using computer-based diagnostic equipment. This function requires special attention due to the specialized training and equipment used. The objective, where capabilities exist, is to perform diagnostic tests and complex repairs on circuit cards previously coded “throwaway” or “not authorized for local repair.” Standardization of training and equipment Air Force-wide is essential. Repairs in no way shall change configuration of component or end item which in turn changes tolerances and values. CCR repairs shall not require a change to TPS software.

6.1. Requirements. All units performing CCR must meet training certification requirements and demonstrate capability for end item test and consistent production quality and configuration control. Before requesting a SMR code change, to CCR items, the unit must have the capability to perform the requested repair. MAJCOMs will ensure CCR technicians are certified in CCR electronic repair procedures to the level outlined in TO 00-25-259. Each participating MAJCOM will implement a

certification/recertification plan. Training may be needed to operate and maintain unique, nonstandard equipment to identify, remove, replace, and operationally check components. Units should not acquire this equipment or training unless it is cost effective and supportable.

6.2. Gold Disk Development. Lead wings incorporate and disseminate CCR information, collect and develop silver disks, and coordinate with the master developer to produce and distribute gold disks. SA-ALC/LDA exercises USAF management oversight for gold disk development. As further defined by memorandum of agreement (MOA), the US Navy's, Naval Undersea Warfare Center is the production facility/master developer for the USAF.

**7. Terms Explained.**

7.1. Circuit Card Assembly (CCA) Signature. The electronic fingerprint of components on a CCA.

7.2. Gold Disk. A compact disk read only memory (CD-ROM) containing "good" CCA signatures and related data which is used to perform CCR.

7.3. Lead Wing. A wing assigned by its MAJCOM to coordinate, usually for a specific Mission Design Series (MDS), CCR candidates to be evaluated and incorporated into a gold disk.

★7.4. MAJCOM Functional Manager (MFM). An individual designated by the MAJCOM Gold Program Manager to administer the RIC, record action items, suspenses, OPRs, results, and prepares the conference minutes.

7.5. Master Developer. Organization responsible for ensuring the validity and quality of CCA signatures, and for producing and distributing gold disks.

7.6. Silver Disk. A floppy disk containing CCA signatures and related data in gold disk ready format compiled by a lead wing.

★7.7. Single Manager (SM). A System Program Director (SPD), Product Group Manager (PGM), or Material Group Manager (MGM).

7.7.1. System Program Director. The individual directing an AFMC System Program Office (SPO) who is ultimately responsible and accountable for decisions and resources in overall program execution of a military system. The SPD is the single person, identified in a Program Management Directive (PMD), who is charged with all cost, schedule, performance, and sustainment aspects of a directed acquisition program. The SPD's primary customer is the using MAJCOM.

7.7.2. Product Group Manager. The individual managing an AFMC product group who is ultimately responsible and accountable for decisions and resources in overall product group management. The PGM is the single person who is charged with all cost, schedule, and performance aspects of a product group and related sustainment activities. Typically, the PGM's product is in direct support of one or more military system SPDs.

7.7.3. Material Group Manager. The individual managing an AFMC material group is ultimately responsible and accountable for decisions and resources in overall material group management. The MGM is the single person who is charged with all cost, schedule, and performance aspects of a material group. The MGM's primary customers for the daily sustainment products and services and new equipment acquisitions are the using MAJCOMs. However, the MGM's customers for integration of new development and technology transition are the respective PGMs and SPDs.

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